

## CLAIMS

1. A method for transforming a monocotyledon,  
comprising contacting a cultured tissue of said  
monocotyledon during dedifferentiation thereof obtained  
5 by culturing an explant on a dedifferentiation-inducing  
medium for less than 7 days with a bacterium belonging to  
the genus *Agrobacterium* containing a super binary vector  
having the virulence region of Ti plasmid pTiBo542  
contained in *Agrobacterium tumefaciens* A281, left and  
10 right border sequences of T-DNA of a Ti plasmid or an Ri  
plasmid of a bacterium belonging to the genus  
*Agrobacterium*, and a desired gene located between said  
left and right border sequences.
2. The method according to claim 1, wherein said  
15 virulent region in said super binary vector comprises  
*VirB* and *VirG* regions.
3. The method according to claim 1, wherein said  
explant is an immature tissue.
4. The method according to claim 3, wherein said  
20 immature tissue is an immature embryo.
5. The method according to any one of claims 1-4,  
wherein said monocotyledon is a plant belonging to the  
family Gramineae.
6. The method according to claim 5, wherein said  
25 monocotyledon is rice.
7. The method according to any one of claims 1-4,  
wherein said bacterium belonging to the genus

*Agrobacterium* is *Agrobacterium tumefaciens*.

8. The method according to any one of claims 1-4,  
wherein said cultured tissue is transformed by contact  
with a suspension of said *Agrobacterium* having a cell  
5 population of  $10^6$  to  $10^{11}$  cells/ml.

9. The method according to any one of claims 1-4,  
further comprising a step of selecting a transformed cell  
or a transformed tissue during dedifferentiation or in a  
dedifferentiated state, after subjecting said cultured  
10 tissue to transformation.

10. The method according to any one of claims 1-4,  
wherein said cultured tissue has the ability to  
regenerate a normal plant.

11. The method according to claim 8, wherein said  
15 cultured tissue is contacted with said suspension of  
*Agrobacterium* for 3-10 minutes, and then cultured on a  
solid medium for several days together with said  
*Agrobacterium*.

12. The method according to any one of claims 1-4,  
20 wherein said virulence region is originated from a super  
binary vector pTOK162.

13. A method for transforming a monocotyledon,  
comprising contacting a cultured tissue of said  
monocotyledon during dedifferentiation thereof obtained  
25 by culturing an explant derived from an immature tissue  
on a dedifferentiation-inducing medium for less than 7  
days with a bacterium belonging to the genus

*Agrobacterium* containing a desired gene and containing a vector having the virulence region of Ti plasmid contained in *Agrobacterium tumefaciens*.

14. The method according to claim 13, wherein said  
5 immature tissue is an immature embryo.

15. The method according to claim 13 or 14, wherein said monocotyledon is a plant belonging to the family Gramineae.

16. The method according to claim 15, wherein said  
10 monocotyledon is rice.